

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 1010294A

	Page Nos.	
	From	To
1. Work Order Cover Page & Laboratory Narrative & Table	1	2
2. Sample Results and Raw Data (Organized By Sample)	3	6
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary (If Applicable)		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results + Raw Data)	-	-
b. Surrogate Recovery Summary Form (If Applicable)	-	-
c. Internal Standard Summary Form (If Applicable)	-	-
d. Duplicate Results Summary Sheet	-	-
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data)	-	-
f. Initial Calibration Data (Summary Sheet + Raw Data)	-	-
g. MDL Study (If Applicable)	-	-
h. Continuing Calibration Verification Data	-	-
i. Second Source LCS (Summary + Raw Data)	-	-
j. Extraction Logs	-	-
k. Instrument Run Logs/Software Verification	7	15
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	16	17
b. Chain-of-Custody Records	18	18
c. Sample Log-In Sheet	19	19
d. Misc. Shipping/Receiving Records (list individual records)		
<u>Sample Receipt Discrepancy Report</u>	20	21
5. Other Records (describe or list)		
a. <u>Manual Spectral Defense</u>	-	-
b. <u>Manual Intergrations</u>	-	-
c. <u>Manual Calculations</u>	-	-
d. <u>Canister Dilution Factors</u>	-	-
e. <u>Laboratory Corrective Action Request</u>	-	-
f. <u>CAS Number Reference</u>	22	23
g. <u>Variance Table</u>	-	-
h. <u>Canister Certification</u>	-	-
i. <u>Data Review Check Sheet</u>	24	24

Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

10/28/10

(Date)

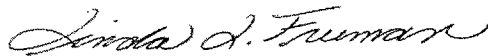
WORK ORDER #: 1010294A

Work Order Summary

CLIENT:	Mr. Brian Baker Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	BILL TO:	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	P.O. #	17314
FAX:	781-247-4305	PROJECT #	17314
DATE RECEIVED:	10/14/2010	CONTACT:	Ausha Scott
DATE COMPLETED:	10/27/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	115911	ATL Applications
02A	115912	ATL Applications
03A	115913	ATL Applications
04A	115914	ATL Applications
05A	115915	ATL Applications
06A	115916	ATL Applications
07A	Lab Blank	ATL Applications
07B	Lab Blank	ATL Applications
08A	LCS	ATL Applications

CERTIFIED BY:



Laboratory Director

DATE: 10/27/10

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Hydrogen Sulfide by Radiello 170
Environmental Health & Engineering, Inc.
Workorder# 1010294A

Six Radiello 170 (H₂S) samples were received on October 14, 2010. The procedure involves adsorption of H₂S by zinc acetate to form zinc sulfide. The sulfide is then recovered by extraction with water and addition of ferric chloride in a strongly acidic solution to produce methylene blue. Methylene blue absorbance is then measured at 665 nm using a spectrophotometer. Results are reported in uG and uG/m³.

Sampling rate of 69 mL/min for H₂S was provided by the manufacturer.

Receiving Notes

Sample collection date was not provided on the Chain of Custody for samples 115911, 115912, 115913, 115914, 115915 and 115916. The client was contacted and a date of 10/13/10 was provided.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 19770 minutes was used for the QC samples and trip blanks.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Sample Results and Raw Data

AIR TOXICS LTD.

ATL Application # 59 for RAD 170 (Hydrogen Sulfide)

Spectrophotometer

Field Sample I.D.	Lab Sample I.D.	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
115911	1010294A-01A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
115912	1010294A-02A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
115913	1010294A-03A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
115914	1010294A-04A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
115915	1010294A-05A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
115916	1010294A-06A	10/13/2010	10/26/2010	1.00	0.80	0.55	ND	ND
Method Blank	1010294A-07A	NA	10/26/2010	1.00	0.80	0.55	ND	ND
Method Blank	1010294A-07B	NA	10/26/2010	1.00	0.80	0.55	ND	ND
LCS	1010294A-08A	NA	10/26/2010	1.00	0.80	0.55	%Rec 84	

COMMENTS: 1. NA=Not Applicable

2. ND=Not Detected

3. Exposure time of 19770 minutes was assumed for the QC samples.

4. Background subtraction not performed.

Calibration Date

10/26/2010 Linear Regression

1.067639005
0.036480749
0.997754209

	Slope
	Y-int
	R2
	1.067639005
	0.036480749
	0.997754209

QC Results and Raw Data

Work Order: 1010294A/1010488

Date: 10/26/10

Method: Rad 170

Analyst: M. Skidmore

Wavelength: 665nm

Standard ID	Concentration	ABS
	Sulfide (mg/mL)	
Level 1 1993-86 -E	0.0716	0.091
Level 2 -D	0.143	0.184
Level 3 -C	0.286	0.354
Level 4 -B	0.572	0.679
Level 5 ✓ -A	1.145	1.242
ICV 1993-89	0.286	0.354

r = 0.9978

m = 1.068

b = 0.0365

ICV % Recovery = 104

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
1010294A-01A	1.00	0.092	115911	10.5 mL	
-02A		0.072	115912		
-03A		0.077	115913		
-04A		0.069	115914		
-05A		0.018	115915		
✓ -06A		0.025	115916		
1010488-01A		0.030	118132		
-02A		0.033	118133		
-03A		0.030	118134		
-04A		0.056	118135		
-05A		0.043	118136		
-06A		0.026	118137		
-07A		0.030	118054		
-08A		0.027	118055		
-09A		0.035	118056		
-10A		0.033	118057		
-11A		0.021	118058		
-12A		0.024	118064		
✓ -12AA		0.024	118064		
1010294A 1010488 -B1K1		0.016	N/A		Lot: 10101
-B1K2		0.021			↓
✓ -LCS		0.156			Lot: 101048 0.1334/mL

Procedure:

- 1.) Add 10 mL of H₂O to sample tube, cap and vortex for 1 minute.
- 2.) Add 0.5 mL of Ferric Chloride-Amine solution and cap immediately.
- 3.) Allow color to develop for 30 minutes.
- 4.) Measure absorbance at 665nm.

→ continued
Page
74

MJS 10/26/10

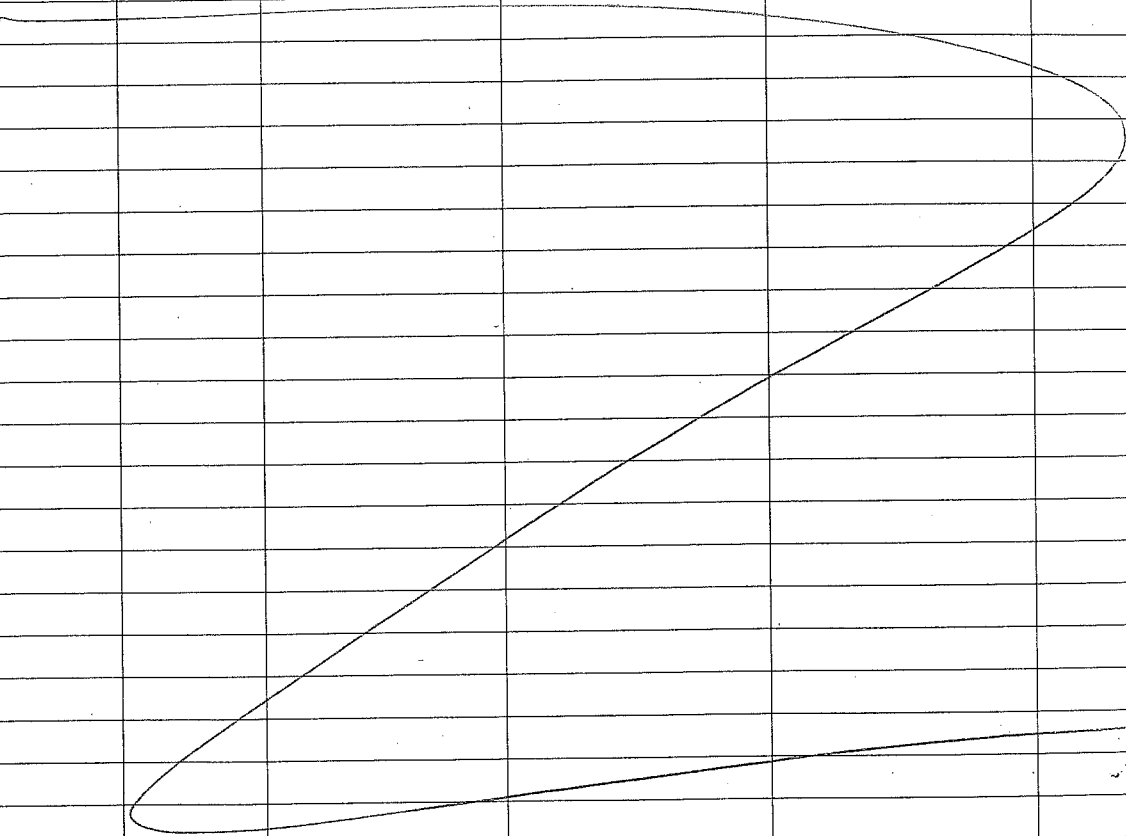
10/26/10

Logbook#: 1927

Method: _____
Wavelength: See Page

Wavelength: See Page

r = _____
m = See Page
b = 73
ICV % Recovery = _____

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments						
70103414A 1010488 - 10V	1.00	0.354	N/A	5.0 mL	0.286 µg/mL						
											
					455 10/26/10						

See Page 73

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-76
Project: Rad 170 Amine Solution
Analyst: M. Skidmore
Preparation Date: 10/18/10
Expiration Date: 11/18/10

Solvent: HPLC H₂O
Solvent Lot #: DB 270

Procedure/Comments:

Sulfuric Acid Solution:

Slowly add 6.25 mL of concentrated sulfuric acid to 2.5 mL of D.I. H₂O, and let the solution cool. (sulfuric acid lot: 01428LS).

Amine Solution:

Dissolve 1.6875g of N,N-dimethyl-p-phenyldiammonium oxalate (located in ER1A; Lot: 63797PJ) in the above mentioned sulfuric acid solution. Dilute this solution to 250 mL with sulfuric acid-water 1:1 v/v. (This is roughly 120 mL H₂O + 120 mL sulfuric acid).

MJS 10/18/10

MJS 10/18/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-77

Project: Ferric Chloride Solution Rad 170

Analyst: M. Skidmore

Preparation Date: 10/18/10

Expiration Date: 10/18/11

Solvent: HPLC H₂O

Solvent Lot #: DB270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate
(located in ERAC, lot: 73297) in 50 mL of H₂O,

MJS 10/18/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-86

Project: Rad 170 Calibration Curve

Analyst: M. S. Fildmore

Preparation Date: 10/26/10

Expiration Date: 10/26/10

Solvent: HPLC H₂O

Solvent Lot #: DB270

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with 98 mL of D.I. H₂O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H₂O = 0.572 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 0.286 µg/mL

Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H₂O = 0.143 µg/mL

Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H₂O = 0.0716 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in.

MJS 10/26/10

MJS 10/26/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd.

Log Book #: 1993

Standard ID: 1993-87

Project: Rad 170 H₂S LCS

Analyst: M. SKidmore

Preparation Date: 10/26/10

Expiration Date: 10/26/10

Solvent: HPLC H₂O

Solvent Lot #: DB270

Procedure/Comments:

MTS 10/26/10
1017048
A Rad 170 cartridge (lot: 10101) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H₂O was aliquoted into the vial. 1.0 mL of H₂S gas (1476-1497; 1000 ppm) was injected into the vial, into the H₂O. The solution was allowed to gently shake for 2 hours. Then 0.5 of the ferric-chloride-amine (1993-88) was added to the vial and capped immediately. The solution was allowed to sit for 30 minutes and the absorbance was measured at 665 nm.

MTS 10/26/10

MTS 10/26/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-88

Project: Ferric chloride Amine Solution Rad170

Analyst: M. Skidmore

Preparation Date: 10/26/10

Expiration Date: 10/26/10

Solvent: HPLC H₂O

Solvent Lot #: DB 270

Procedure/Comments: Add 5.0 mL of ferric chloride
solution (1993-77, exp 10/18/11) with 25 mL
of Amine solution (1993-76; exp. 11/18/10).

MJS

10/26/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-89

Solvent: HPLC H₂O

Project: Rad. 170 ICV

Solvent Lot #: DB 270

Analyst: FM

Preparation Date: 10/26/10

Expiration Date: 10/26/10

Procedure/Comments: _____

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with
98 mL of D.I. H₂O = 1.145 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 0.286 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only
stable in the flask it was prepared in.

FM 10/26/10

FM
10/26/10

Fauzi
Signed

10/26/10
Date

MB 322
Reviewed

10/27/10
Date

Shipping/ Receiving Documents

180 Blue Ravine Road, Suite B
Folsom, CA 95630

Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Brian Baker
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 1010294A
of pages (Including Cover): 4
10/28/2010

Thank you for selecting Air Toxics Ltd. We have received your samples and have found discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy.

Corrections can be faxed to **Ausha Scott at 916-985-1020.**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

In accordance with your company's contract, this account is required to have a PO that is fully executed by both parties which also covers the cost of the workorder before any data can be released. Please ensure that you have given all appropriate information to our Project Manager so that there will be no delay in reporting of the data you are requesting.

The following discrepancies have been observed:

Samples were received without documentation regarding collection date on the Chain of Custody. The sampling date of 10/13/10 you have provided by telephone/fax/e-mail will be used to determine the extent of hold time.

Your prompt response is appreciated.

Environmental
Health &
Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 1010294
13 OCT 10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Air Toxics

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 17314

The cost of this analysis will be covered by EH&E Purchase Order # 17314

For EH & E Data Coordinator - URGENT DATA ☒

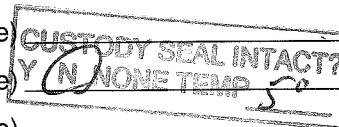
SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
115911	Air/PASSIVE	H ₂ S ANALYSIS	13D 17H 30M
115912			
115913			
115914			
115915			ØD
115916			
115917	Air/PASSIVE	FORMALDEHYDE ANALYSIS	13D 17H 30M
115918			
115919			
115920			
115921			ØD

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305 ☒ Electronic transfer - datacoordinator@eheinc.com
☐ RETURN SAMPLES ☒ Additional report recipient Hbakere@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 10/13/10
Received by: WAWMONT-ATC of (company name) ATC Date: 10-14-10 0907
Relinquished by: _____ of (company name) Date: _____
Received by: _____ of (company name) Date: _____
Relinquished by: _____ of (company name) Date: _____
Received by: _____ of (company name) Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____



SAMPLE RECEIPT SUMMARY

WORKORDER 1010294A

Client	Phone	Date Promised: 10/27/10 11:59 pm
Mr. Brian Baker	800-825-5343	Date Completed: 10/27/10
Environmental Health & Engineering, Inc.	Fax	Date Received: 10/14/10
117 Fourth Avenue	781-247-4305	PO#: 17314
Needham, MA 02494		Project#: 17314
Sales Rep: TL		Total \$: \$ 510.00
		Logged By: BSW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	115911	ATL Applications	10/13/2010	\$80.00
02A	115912	ATL Applications	10/13/2010	\$80.00
03A	115913	ATL Applications	10/13/2010	\$80.00
04A	115914	ATL Applications	10/13/2010	\$80.00
05A	115915	ATL Applications	10/13/2010	\$80.00
06A	115916	ATL Applications	10/13/2010	\$80.00
07A	Lab Blank	ATL Applications	NA	\$0.00
07B	Lab Blank	ATL Applications	NA	\$0.00
08A	LCS	ATL Applications	NA	\$0.00
Misc. Charges eCVP (6) @ \$5.00 each.				\$30.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC/14482

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #59 H2S-Radiello 170

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

@ Air Toxics Ltd	Title: Sample Discrepancy Report			Release Date: 03/03/10
	Form #: F1.3	Revision #: 1	Revision Date: 10/7/08	Page #: 1 of 2

Sample Discrepancy Report

Identification

Initiated By: BW Project ID: 14482 PM: AS Date: 10/14/2010 Discrepancy Type: ☒ 1. ☐ 2. ☐ 3.

Workorder(s) affected: 1010294A/B Sample(s) affected: 01A-10A

1. Sample Receipt Discrepancies

Narration Not Required:

- 1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. ☐ No brass cap on canister.
- 1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

- 1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

- 1.5. ☐ COC was not filled out in ink.
- 1.6. ☐ COC improperly relinquished / received.
- 1.7. ☐ Sample tags / can numbers do not match the COC.
- 1.8. ☒ Sample date ☐ error / ☒ missing on COC but noted on sample tag (check one).
- 1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).
- 1.10. ☐ ID-none on the sample Tag/Blank
- 1.11. ☐ Other (describe below).

Describe the Discrepancy: DOC not specified on sample tag or COC

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

- | | |
|---|---|
| <ul style="list-style-type: none"> 2.1. <input type="checkbox"/> COC was not received with samples. 2.2. <input type="checkbox"/> Analysis method(s) is <input type="checkbox"/> not specified / <input type="checkbox"/> incorrectly specified (check one) on the COC. 2.3. <input type="checkbox"/> Incorrect sampling media / container for analysis requested. 2.4. <input type="checkbox"/> Number of samples on the COC does not match the number of samples that were received. 2.5. <input type="checkbox"/> Samples were received expired. 2.6. <input type="checkbox"/> Sampling date (time for sulfur) is not documented for <input type="checkbox"/> <u>some</u> / <input type="checkbox"/> <u>any</u> samples (check one). 2.7. <input type="checkbox"/> Sample received with amount of H₂O in the Tedlar Bag. 2.8. <input type="checkbox"/> Sample cannot be analyzed. Container was <input type="checkbox"/> received broken / <input type="checkbox"/> leaking / <input type="checkbox"/> flat / <input type="checkbox"/> defective. 2.9. <input type="checkbox"/> Tedlar bag / canister received emitting a strong odor; Sample <input type="checkbox"/> can / <input type="checkbox"/> cannot (check one) be analyzed. 2.10. <input type="checkbox"/> Tedlar Bag for Sulfur analysis has metal fitting. 2.11. <input type="checkbox"/> Environmental Supply Company valves 2.12. <input type="checkbox"/> Sorbent samples-sampling volume was not provided | <ul style="list-style-type: none"> 2.13. <input type="checkbox"/> Flow controller used – canister samples received at ambient or under pressure. 2.14. <input type="checkbox"/> Canister was at ambient pressure at time of pressurization and (check all that apply):
 <input type="checkbox"/> Canister failed leak check on two manifolds,
 <input type="checkbox"/> Canister valve was open,
 <input type="checkbox"/> Brass nut was loose/not present.
 <input type="checkbox"/> Sample can be analyzed
 <input type="checkbox"/> Cannot be analyzed 2.15. <input type="checkbox"/> Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum. 2.16. <input type="checkbox"/> Canister sample received at >15"Hg (<u>not</u> identified as a Trip/Field Blank). 2.17. <input type="checkbox"/> Canister Trip Blank received at low vacuum (< 25"Hg). 2.18. <input type="checkbox"/> Sorbent Sample received outside method required temperature of 2°C to 6°C; <input type="checkbox"/> ice / <input type="checkbox"/> blue ice (check one) was present. A temp. Blank <input type="checkbox"/> was / <input type="checkbox"/> was not present (check one). 2.19. <input type="checkbox"/> Other (describe below) |
|---|---|

Initials: _____ Date: _____ Notify Receiving: ☐ Notify PM: ☐

Describe the Discrepancy: _____

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

- | | |
|--|--|
| 3.1. <input type="checkbox"/> Tedlar Bag found to be leaking at the time of analysis; sample <input type="checkbox"/> can / <input type="checkbox"/> cannot (check one) be analyzed. | 3.6. <input type="checkbox"/> Sample loss due to instrument malfunction / broken glassware. |
| 3.2. <input type="checkbox"/> Tedlar Bag found to be flat/low volume; sample cannot be analyzed. | 3.7. <input type="checkbox"/> Low/high surrogate recoveries noted in QC/sample(s) for extractable samples. |
| 3.3. <input type="checkbox"/> Sulfur samples received with insufficient time to analyze prior to expiration. | 3.8. <input type="checkbox"/> Reporting Limit was raised. |
| 3.4. <input type="checkbox"/> Canister found to be leaking at the time of analysis. | 3.9. <input type="checkbox"/> Post weight > Pre weight in field/lab Blank for PM10/TSP samples. |
| 3.5. <input type="checkbox"/> VOST tube saturated; bag dilution necessary. | 3.10. <input type="checkbox"/> Other (describe below). |

Initials: _____ Date: _____ Notify Receiving: ☐ Notify PM: ☐

Team Lead Initials: _____ Date: _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification

☐ Section 2 Complete

☐ Section 3 Complete

Action:

- ☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: _____ Date: _____

- ☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: _____ Person notified: _____ Date: _____

- ☐ Waiting for Client Reply

Comments: _____

☐ Notify Lab Name: _____ Date: _____ Notify Receiving: ☐

- ☐ Additional notifications attached.

Additional Comments:

Other Records



Method : ATL Application #59 H2S-Radiello 170

CAS Number	Compound	Rpt. Limit (ug)
7783-06-4	Hydrogen Sulfide	1.2

@ Air Toxics Ltd	Title: Data Review Checklist		Release Date: 07/28/10
	Form #: F1.27	Revision #: 2	Revision Date: 07/27/10
			Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #:

1010294A

A ₁	A ₂	W	T	R	Q	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The final report has the correct reporting list, special units, and header info.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-Standard sublist printed/verified, LOQ and LOD verified
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample Discrepancy Report (SDR) is completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corrective Action issued - # _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unusual circumstances have been documented in the notes section below
						LUMEN validation report present and initialed
						CIRCLE (YES / NO)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Blank, CCV, LCS and DUP met QC criteria
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hold time is met for all samples
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate data qualifier flags are applied
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations for samples and QC are properly documented
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples analyzed within the project or method specific clock
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retention times have been verified
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate ICAL(s) included, %RSD Recalculation
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least one result per sample is verified against the target quant sheets/raw data
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct amount of sample analyzed (i.e. sample not over-diluted)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs resemble reference spectra
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs between duplicate samples are consistent
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data for multiple analyses of sample(s) has been evaluated for comparability of results
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special units for all samples in the final report are correctly calculated
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manually entered results checked (i.e. TPH/NMOC)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody scanned correctly
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify sample id's vs. chain of custody
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date MDL(s) performed per instrument(s) 10/25/10
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples pressurized w/ appropriate gas (N ₂ or He) <input type="checkbox"/> Other (i.e. Tedlar bag, cartridge, sorbent)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final pressure consistent with canister size (6L vs. 1L)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify receipt pressures
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify canister ID #'s
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final PDF report reviewed for correctness

Notes: (to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)

A/R: 19770 minutes duration was used for QC samples and trip blanks.

T/Q:

A ₁ /A ₂	W/T	R*	Q
(Analytical Review/Date)	(Write-up/Tech Review/Date)	(Report Review/Date)	(QA Review/Date)
A ₁ : <u>Milo Zito, 10/27/10</u>	W: <u>Milo Zito, 10/27/10</u>	R: _____	_____
A ₂ : _____	T: _____	_____	_____

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.

Note (2): Report reviewer and write-up reviewer must be separate individuals for DoD & Client Specific projects.

* Report Review is completed for DoD & Client Specific projects only.